Title (en)

METHOD FOR DISTRIBUTING HELIOSTATS IN TOWER PLANT

Title (de)

VERFAHREN ZUR VERTEILUNG VON HELIOSTATEN IN EINEM TURMANLAGE

Title (fr)

PROCEDE DE DISTRIBUTION D'HELIOSTATS DANS UNE INSTALLATION DE TYPE TOUR

Publication

EP 2520873 A2 20121107 (EN)

Application

EP 10834253 A 20101130

Priority

- ES 200902268 A 20091201
- ES 2010000485 W 20101130

Abstract (en)

Method for distributing heliostats in a tower solar plant surrounded by a field of heliostats which reflect solar radiation on said tower. The distribution method for said heliostats consists of imitating the systems that are found in nature to maximize the collection of light (plant seeds, leaves and petals) and which is mathematically described by Fermat spirals in a number belonging to the Fibonacci series, through the placement, in polar coordinates, of each heliostat according to a radius and an angle defined by r n = c n ‹ n ; ¸ n = n ‹ 2 ‹ À Ä 2 ; being: o r n distance from the tower (2) to the position of the heliostat n (3), o ¸ n the angle formed by the radius r n with the radius r n-1 , o n number of the heliostat (3) we wish to place, o c n parameter that corresponds to the compactness index of the heliostats (3) in the plant, o Ä the irrational limit of the golden section, i.e., Ä = 1 + 1 + 1 + 1 + 1 + €¦

IPC 8 full level

F24S 23/70 (2018.01)

CPC (source: EP ES US)

F24S 23/70 (2018.05 - EP ES US); F24S 2020/16 (2018.05 - EP); F24S 2023/87 (2018.05 - EP); F24S 2201/00 (2018.05 - EP); Y02E 10/40 (2013.01 - EP ES)

Citation (search report)

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Cited by

EP2416063A4; CN105402901A; WO2020240457A1

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